

CLAIMS

1. A flow detector comprising
a housing,
a cavity arranged in said housing, said cavity comprising a channel for a fluid to be measured,
at least one opening extending from said cavity through said housing to an outside of said housing,
a semiconductor chip arranged in said cavity, said semiconductor chip having an integrated flow sensor,
at least one electric lead-through extending through said opening and providing a connection of said semiconductor chip to the outside, and
a hardened filler material arranged in said opening sealing said opening and mechanically connecting said at least one electric lead-through to said housing.
2. The flow sensor of claim 1 wherein the filler material is of at least one material selected from the group comprising glass and epoxy resin.
3. The flow sensor of claim 1 wherein the housing is of at least one material selected from the group comprising metal, ceramics and plastics.
4. The flow sensor of claim 1 wherein the at least one lead through comprises a metal pin or metal wire.
5. The flow sensor of claim 1 wherein said housing comprises at least two housing parts.
6. The flow sensor of claim 5 wherein the at least one opening extends through only one of said housing parts.
7. The flow sensor of claim 5 wherein the housing parts are glued or welded to each other.
8. The flow sensor of claim 5 comprising a recess in one of said housing parts, wherein at least one electrical

connector extends through said recess between said semiconductor chip and said at least one lead-through.

9. The flow sensor of claim 5 further comprising a recess in said second housing part, wherein said semiconductor chip is arranged in said recess and wherein said at least one opening extends through said second housing part.

10. The flow sensor of claim 5 comprising a plurality of lead-throughs.

11. The flow sensor of claim 10 wherein several lead-throughs extend through one opening.

12. The flow sensor of claim 10 wherein all lead-throughs extend through the same opening.

13. The flow sensor of claim 1 wherein the filler is of a different material than the housing.

14. A flow detector comprising
a housing,
a channel in said housing for a fluid to be measured,

a semiconductor chip arranged in said housing at said channel, said semiconductor chip having an integrated flow sensor,

at least one electric lead-through extending through at least one opening in said housing for connecting said semiconductor chip to an outside of said housing, and

a hardened filler material arranged in said opening sealing said at least one opening and mechanically connecting said at least one electric lead-through to said housing.

15. A method for manufacturing a flow sensor having a housing, a channel in said housing for a fluid to be measured, a semiconductor chip arranged in said housing at said channel, said semiconductor chip having an integrated flow sensor, and at least one electric lead-through extending

through at least one opening in said housing for connecting said semiconductor chip to an outside of said housing, said method comprising the steps of

inserting a liquid filler material into said opening and

hardening said filler material for sealing said opening and mechanically connecting said at least one electric lead-through to said housing.